

Task Order 15-10

1. TITLE OF EFFORT: JSC Pressure Systems & WSTF Safety & Mission Assurance Requirements

2. TASK DESCRIPTION:

The contractor shall provide the JSC and White Sands Test Facility (WSTF) SR&QA offices with support in the establishing and implementing policies and program requirements, engineering and technical support in materials and process engineering, engineering and technical support for the JSC pressure systems certification program, inspection support to flight and flight-related systems to assure that quality assurance requirements are satisfied, and performance of activities related to institutional safety and health.

2.1 SOW Reference: Section 9.0 Institutional Safety and Quality

2.2 REQUIREMENTS

2.2.1 Ground-Based Pressure Systems

Manage and implement the JSC ground-based pressure systems certification / re-certification program in accordance with JPR 1710.13 (current version) in the following areas:

- a. Review of design documents (drawings, calculations, manufacturers' data, etc.) from JSC user organizations for new or modified ground-based pressure vessels/systems (PV/S's) for compliance with NASA requirements.
- b. Verify welding/brazing procedures and personnel qualifications and prepare Weld/Braze Inspection Records (WIR's) as a prerequisite for commencing welding/brazing operations involving JSC ground-based PV/S's.
- c. Perform internal, external, wall thickness, and welding/brazing inspections and witness proof pressure tests/relief valve set tests as a basis for initial certification/periodic re-certification of ground-based PV/S's as safe to operate.
- d. Manage the PV/S inventory/recall process and generate Status Reports, Inspection Due Notifications, and Delinquency Reports for action by responsible JSC PV/S user organizations.
- e. Review PV/S waiver requests and recommend approval/disapproval by the JSC Pressure Systems Manager (PSM).
- f. Assist the PSM when auditing Palmdale and WSTF pressure systems certification programs and document findings and observations for resolution of problem conditions identified.
- g. Support the processes required to perform re-certification and modification of existing ground-based pressure systems and certification of new ground-based pressure systems in accordance with facility policies/procedures, applicable industry codes and specifications, and governing NASA standards. Perform Pressure System Specialists activities in addition to providing technical consultation on applicable code requirements.

2.2.2 Ground-Based Pressure Systems – Special Projects

- a. In accordance with the tasks identified in section 2.2.1, manage and support the processes required to perform re-certification and modification of existing ground-based pressure systems and certification of new ground-based JSC pressure systems for S&MA supported projects.

2.2.3 WSTF Safety and Mission Assurance

Perform Quality Engineering, Quality Assurance, Pressure Systems/Welding Engineering and Administrative tasks in support of the WSTF S&MA in the following areas in accordance with the associated WSTF Management System Documents:

- a. Process submitted Corrective/Preventive Action Requests (CPAR's), including tracking CPAR resolution.

- b. Work with WSTF design groups, technical offices, and S&MA to make and implement quality improvements and changes.
- c. Provide a field quality assurance surveillance of WSTF test activities.
- d. Provide acceptance test verification.
- e. Perform cross-functional management system and system safety audits.
- f. Perform conformance audits/surveillances in areas of responsibility.
- g. Issue discrepancy records for observed non-conformances.
- h. Implement a discrepancy trend analysis system.
- i. Support the processes required for the qualification of welding/brazing personnel and review/authorize welding/brazing processes and documentation in accordance with facility policies and procedures, applicable industry codes and specifications, and governing NASA standards.
- j. Review operational documentation for conformance to requirements.
- k. Review WSTF management system documents for sufficiency in addressing and conformity to meeting requirements.
- l. Perform vendor surveys and maintain Survey Vendor List (SVL)
- m. Coordinate WSTF management system documentation review and maintain associated management system documentation.
- n. Implement and maintain WSTF Hazard Management System. Support applicable agency requirements implementation. Coordinate NASA customer inputs and communicate system needs to NASA.
- o. Facilitate contribution to and application of the Lessons Learned Information System (LLIS) for WSTF personnel. Provide monthly assessment of WSTF information for candidate LLIS contributions. Coordinate application of lessons learned with WSTF Management Representatives and assist with associated process improvements, where identified.
- p. Analyze GIDEP/ALERTS and coordinate applicable information with affected WSTF representatives.
- q. Support the processes required to perform re-certification and modification of existing ground-based pressure systems and certification of new ground-based pressure systems in accordance with facility policies/procedures, applicable industry codes and specifications, and governing NASA standards. Perform Pressure System Inspection activities in accordance with NASA and adopted industry consensus standards. Also provide technical consultation on applicable code requirements and their associated applications.

3.0 PERIOD OF PERFORMANCE: October 1, 2009 – April 30, 2010

4.0 ESTIMATED COST

Contractor may provide travel, training, materials, and other non-labor resources as necessary to support task order requirements. Training may include selected professional discipline-based or spaceflight-based conferences with approval of the TMR.